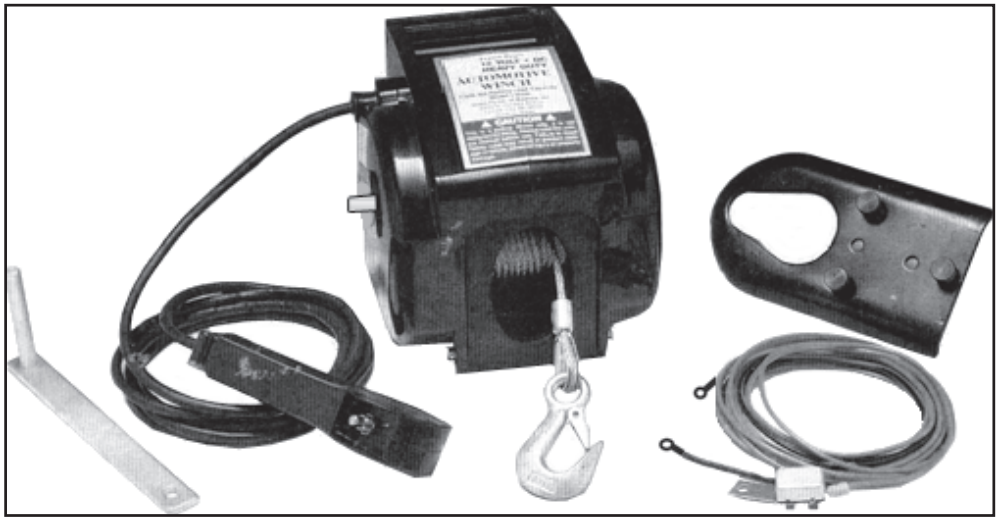
CHICAGO
Electric Power Tools

12 VOLT WINCH
(POWER IN / POWER OUT)

Model 03882

ASSEMBLY AND OPERATING INSTRUCTIONS



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For technical questions, please call 1-800-444-3353.

REVISED MANUAL 04/03; REV 01/05

PRODUCT SPECIFICATIONS

Item	Description
Electrical Requirements	12 Volt DC Input
Load Capacities	9,500 Lbs. (Rolling) 8,500 Lbs. (Marine) 3,000 Lbs. (Pulling)
Power In and Out Capability	Yes
Line Speed	10 Ft. Per Minute with Load
Cable Length	36 Ft.
Battery Cable Lengths	10 Ft. for Negative Lead 25 Ft.-2 In. for Positive Lead
Remote Cable Length	10 Ft.
Mounting Plate Dimensions	8-3/4" L x 4-15/16" H x 3/16" W
Main Hook Size	5/8" Opening x 4-1/4" Long
Pulley Hook Size	5/8" Opening x 7-5/8" Long
Net Weight	40 Lbs.

SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY WARNINGS AND PRECAUTIONS

1. **KEEP WORK AREA CLEAN AND DRY.** Cluttered, damp, or wet work areas invite injuries.

2. **KEEP CHILDREN AWAY FROM WORK AREA.** Do not allow children to handle this product.

3. **STORE IDLE EQUIPMENT.** When not in use, tools and equipment should be stored in a dry location to inhibit rust. Always lock up tools and equipment, and keep out of reach of children.

4. **DO NOT USE THIS PRODUCT IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to use this product.

5. **USE EYE PROTECTION.** Wear ANSI approved safety impact eye goggles when assembling and using this product. ANSI approved safety impact eye goggles are available from Harbor Freight Tools.

6. **DRESS SAFELY.** Do not wear loose clothing or jewelry, as they can become caught in moving parts. Wear a protective hair covering to prevent long hair from becoming caught in moving parts. If wearing a long-sleeve shirt, roll sleeves up above elbows.

7. **DO NOT OVERREACH.** Keep proper footing and balance at all times to prevent tripping, falling, back injury, etc.

8. **INDUSTRIAL APPLICATIONS MUST FOLLOW OSHA REQUIREMENTS.**

9. **STAY ALERT.** Watch what you are doing at all times. Use common sense. Do not use this product when you are tired or distracted from the job at hand.

10. **CHECK FOR DAMAGED PARTS.** Before using this product, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace or repair damaged or worn parts immediately.

11. **REPLACEMENT PARTS AND ACCESSORIES:** When servicing, use only identical replacement parts. Only use accessories intended for use with this product. Approved accessories are available from Harbor Freight Tools.

12. **MAINTAIN THIS PRODUCT WITH CARE.** Keep this product clean and dry for better and safer performance.

13. **MAINTENANCE:** For your safety, service and maintenance should be performed regularly by a qualified technician.

14. **USE THE RIGHT TOOL FOR THE JOB.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool, and do not use this tool for a purpose for which it was not intended.

15. **WARNING:** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors, which cannot be built into this product, but must be supplied by the operator.

SPECIFIC PRODUCT WARNINGS AND PRECAUTIONS

1. **DO NOT EXCEED THE MAXIMUM RATED LOAD CAPACITY FOR THE WINCH; (9,500 LBS. ROLLING), (8,500 LBS. MARINE), (3,000 LBS. PULLING).** Never use the Hand Crank (1) to "assist" the Winch. Overloading the Winch could cause serious personal injury and/or property damage.

2. **THE WINCH IS DESIGNED FOR INTERMITTENT USE ONLY.** Do not use the Winch in a constant duty application. The duration of the pulling job should be kept as short as possible. If the Winch becomes very hot to the touch, stop the Winch and let it cool down for several minutes. Never pull for more than one minute at or near the rated load capacities. Do not maintain power to the Winch if the Motor (65) stalls.

3. **MAKE SURE TO READ AND UNDERSTAND ALL INSTRUCTIONS AND SAFETY PRECAUTIONS AS OUTLINED IN THE MANUFACTURER'S MANUAL FOR THE VEHICLE/TRAILER TO WHICH THE WINCH WILL BE ATTACHED.**

4. **MAKE SURE TO READ AND UNDERSTAND ALL INSTRUCTIONS AND SAFETY PRECAUTIONS AS OUTLINED IN THE MANUFACTURER'S MANUAL FOR THE OBJECT YOU WILL WINCH.** Make sure to attach the Winch Cable Hook (57) of the Winch to the manufacturer's recommended pulling point.

5. **ALWAYS EXAMINE THE WINCH FOR STRUCTURAL CRACKS, BENDS, DAMAGE, FRAYED CABLE, AND ANY OTHER CONDITIONS THAT MAY AFFECT THE SAFE OPERATION OF THE WINCH.** Do not use the Winch even if minor damage appears.

6. **MAINTAIN A SAFE WORKING ENVIRONMENT.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris.

7. **ALWAYS KEEP HANDS AND FINGERS AWAY FROM THE GEARS OF THE WINCH WHEN APPLYING OR RELEASING A LOAD.** Remain clear of the Winch Cable Hook (57) when pulling a load. Do not stand in line with the Cable Assembly, as it could whip violently should it break. People and animals should be kept at a safe distance when using the Winch.

8. **USE EXTREME CAUTION WHEN APPLYING OR RELEASING A LOAD.** Never allow the load to suddenly release. Slowly and carefully apply and release the load.

9. **NEVER WINCH A BOAT OR OTHER OBJECT WITH ANYONE IN OR ON IT.** Use a spotter to assist you in assuring that it is safe to operate the Winch. Make sure this person is out of the way of the vehicle and the Steel Cable before activating the Winch.

10. **WHEN MOUNTING THE WINCH ON A VEHICLE/TRAILER, MAKE SURE TO ALLOW SUFFICIENT SPACE FOR THE WINCH'S HAND CRANK (1) TO BE TURNED A FULL 360 DEGREES.**

11. **THE WINCH IS DESIGNED FOR MOUNTING ON SQUARE OR RECTANGULAR SURFACES ONLY.** Do not attempt to mount the Winch on a rounded surface.

12. **THE WINCH IS NOT DESIGNED TO ACCOMMODATE ROPES OR FIBERGLASS STRAPS.** Do not replace the Steel Cable with a Cable of lesser strength.

13. **THE STEEL CABLE MUST BE PULLED STRAIGHT IN.** Keep the load in line with the Winch. Pulling at an angle (off to the side) may cause excessive stress on the Winch.

14. **ALWAYS LEAVE AT LEAST FOUR TURNS OF STEEL CABLE ON THE CABLE ASSEMBLY SHAFT TO PREVENT PULLING THE STEEL CABLE COMPLETELY OUT OF THE WINCH.**

15. **DO NOT LEAVE THE WINCH UNATTENDED WHILE IT IS UNDER A LOAD.**

16. **WARNING:** People with pacemakers should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.

17. **NEVER LIFT PEOPLE AND ANIMALS OR HOIST LOADS OVER PEOPLE.**

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts List** (page 15) are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

ASSEMBLY INSTRUCTIONS

NOTE: For additional references to the parts listed below, refer to the **Assembly Diagram** (page 16).

Permanent Mounting Of The Winch:

1. Select a mounting site on the bed of a truck, trailer, or other suitable location. **CAUTION: This Winch can generate 9,500 pounds rolling, 8,500 pounds marine, and 3,000 pounds pulling force. Make sure the location selected can withstand this much force. It may be required to use steel reinforcement plates (not included), and/or to weld on additional bracing (not included), depending on the desired mounting location.**

2. Align the Base of the Winch with the desired location, and mark for drilling the *three* mounting holes required to attach the Winch to the desired location. Then, drill these three mounting holes on the vehicle/trailer. **(See Figure A.)**

3. Use three hardened Steel Bolts at least 3/8" in diameter, three Lock Washers, and three Nuts (all not included), to securely attach the Winch to the desired location. **(See Figure A.)**

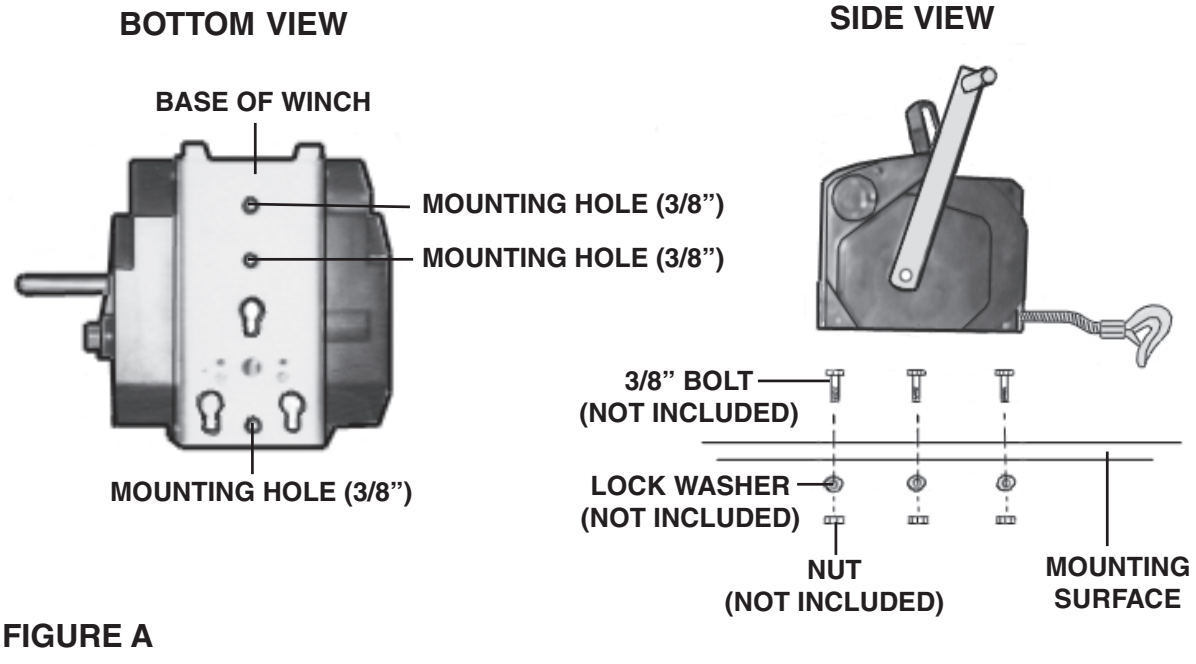


FIGURE A

Temporary Mounting Of The Winch:

1. Insert three Screws (74) into the three mounting holes in the Adapter Plate, and secure the Screws to the Adapter Plate, using three Washers (76), and three Nuts (77). **(See Figure B.)**

2. Insert the heads of the three Screws (74) into the three keyhole slots on the Base of the Winch. **(See Figure B.)**

3. Attach the Winch with its Plate (75) to the vehicle's Hitch Ball (not included) by inserting the Hitch Ball through the teardrop-shaped hole in the Adapter Plate. **(See Figure B.)**

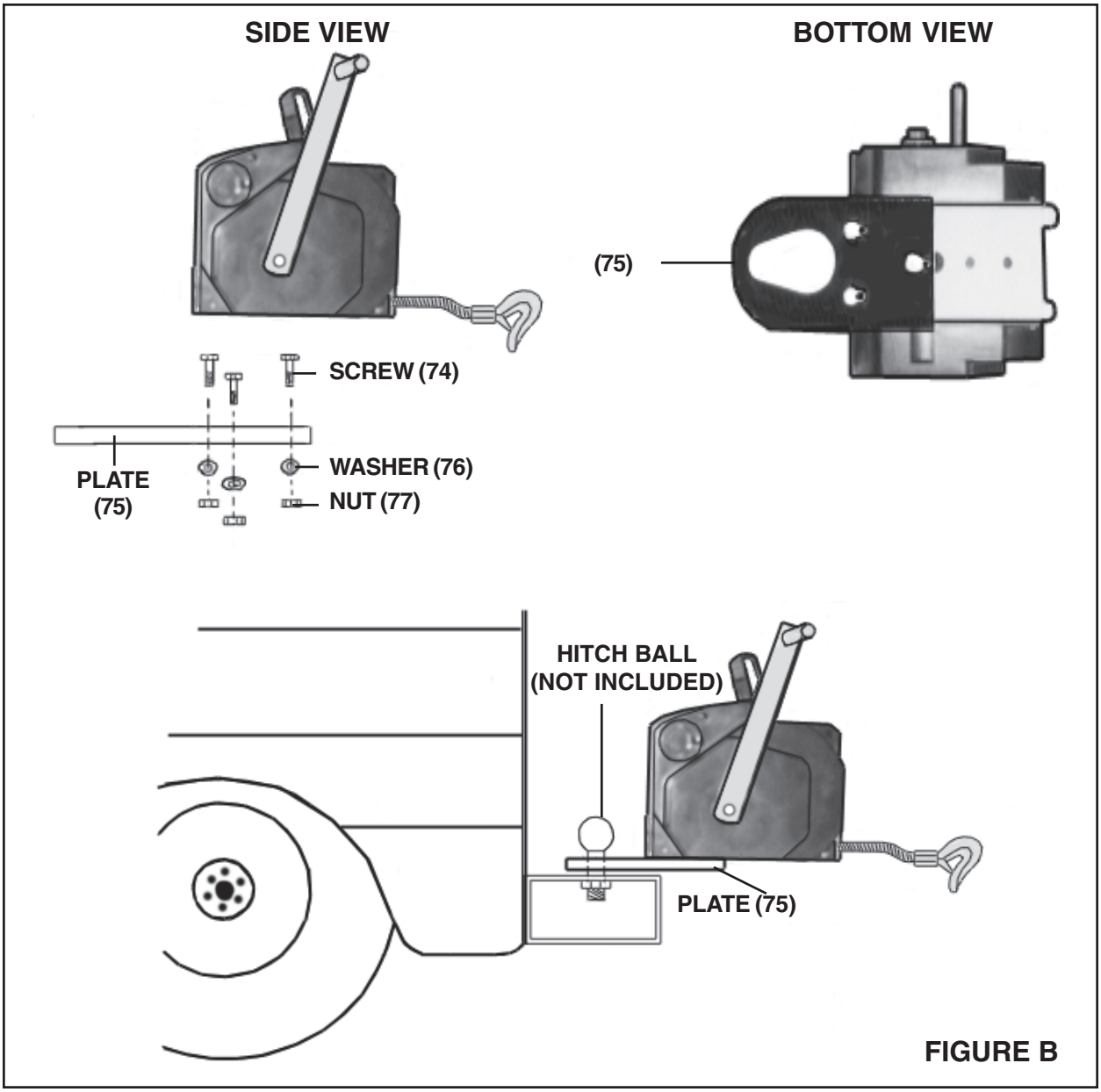


FIGURE B

To Connect The Electrical Wiring:

NOTICE: The use of an "Overload Protection Device" (circuit breaker) is highly recommended in order to protect the vehicle and its battery from damage in case of a winch failure/overload. A 50-amp circuit breaker (not included) should be purchased and installed in a safe location as close to the vehicle's battery as possible. The circuit breaker will be installed inline with the winch's "20' Lead Wire" (47) **RED** wire and the vehicle battery. Two (2) solderless, insulated, 12-10 AWG ring tongue terminals (not included) will also be needed to install the circuit breaker. The rings on the terminals will need to be big enough to fit on the battery terminal bolt.

1. **NOTE: Depending on your level of knowledge regarding electrical wiring, you may wish to have this procedure performed by a qualified technician.**

2. **CAUTION: Prior to performing this procedure, make sure the vehicle engine is turned off. Make sure the vehicle transmission is in its "Park" position and emergency brake is on. Also, make sure the engine, transmission, and exhaust system is cool to the touch.**

3. ***To connect the wiring***, plan a route for the Wire Harness Assembly (64) from the point of where the Winch will be mounted on the vehicle to the vehicle's 12 Volt DC Battery. The route should be secure, out of the way of moving parts, road debris, or any possibility of being damaged by operation or maintenance of the vehicle. For example, the Power Cord may be routed under the vehicle, attaching it to the frame using suitable fasteners (not included). Do not attach the Power Cord to the exhaust system, drive shaft, emergency brake cable, fuel line, or any other components which may create damage to the Power Cord through heat or motion, or create a fire hazard. If a hole is drilled through the bumper or any other part of the vehicle, make sure to install a rubber grommet (not included) in the hole to prevent fraying of the wires at that point.

4. Route the Wire Harness Assembly (64), following the precautions discussed in Step 3. Once the Wire Harness Assembly (64) is routed to the Battery, attach the **RED**, color coded, Ring Electrical Connector to the **POSITIVE (+)** terminal of the Battery. **(See Figure C.)**

5. Attach the **BLACK**, color coded, Ring Electrical Connector to the **NEGATIVE (–)** terminal of the Battery. **(See Figure C.)**

6. **WARNING:** Never continue using the Winch until the vehicle's 12 Volt DC Battery is run down. You may wish to keep the engine running while using the Winch to continually recharge the Battery. However, make sure the vehicle is in "neutral", the vehicle's emergency brake has been set and, whenever possible, the vehicle's wheels have been chocked. Do not use a dirty, corroded, or leaking Battery to avoid injury from possible acid burns. Always wear ANSI approved safety eye goggles when working with or around a Battery.

7. **WARNING: Carbon Monoxide is a colorless, odorless, gas emitted from the engine's exhaust that may KILL or cause serious personal INJURY when inhaled. Do not run the engine in an area without proper ventilation.**

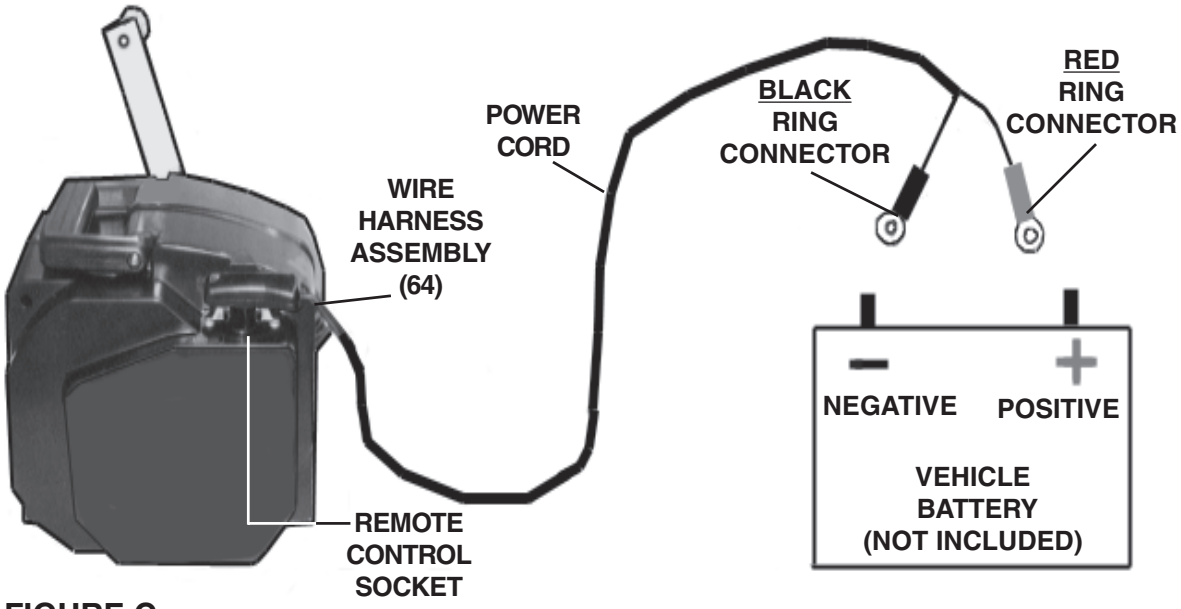


FIGURE C

To Connect The Remote Control:

Lift the Rubber Seal on the left side of the Winch, and insert the Cord Plug (8) into the Remote Control Socket. Then, set the Remote Control Housing in a safe place until ready for use. **(See Figure D.)**

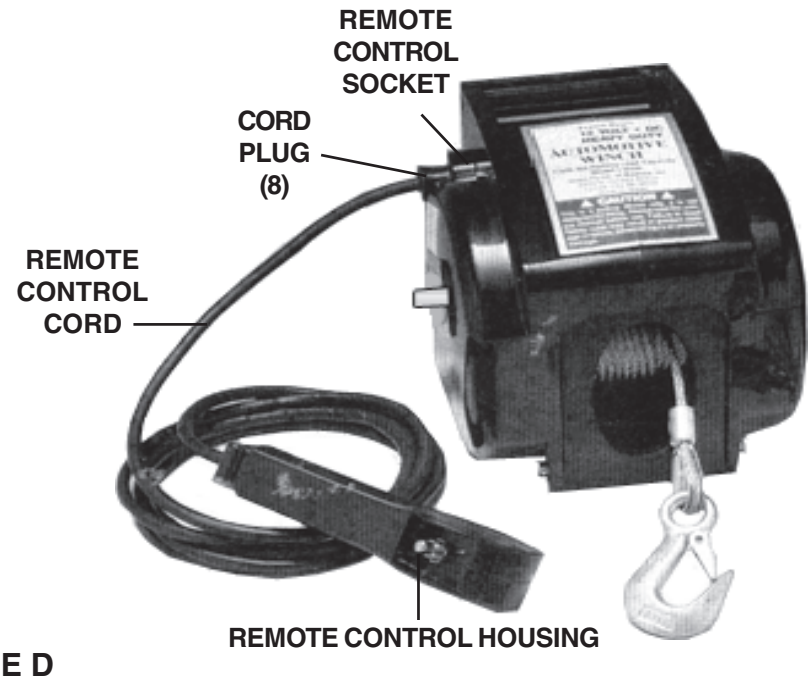


FIGURE D

To Attach The Hand Crank:

The Handle (1) has a hex opening that fits the jam nuts. A second adjustable wrench will be needed to tighten the nuts (13) against each other. Then use the handle over one of the nuts for manual operation. For power operation in either direction, the nuts must be tightened against the clutch. For manual operation, back the nuts off then tighten them together.

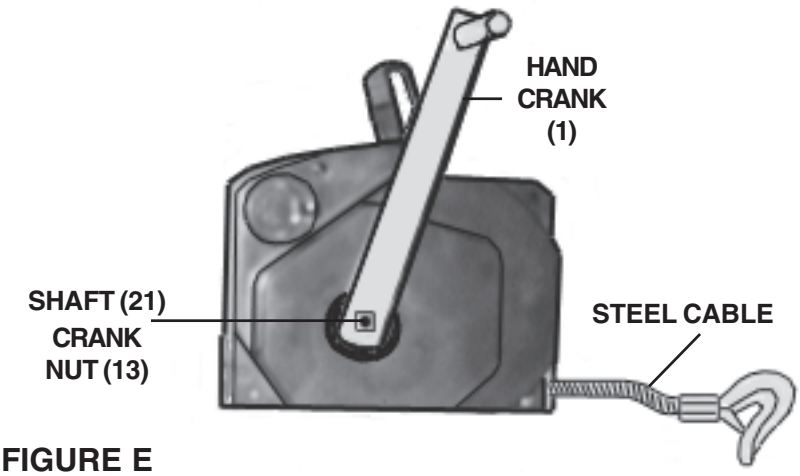


FIGURE E

OPERATING INSTRUCTIONS

To Use The Winch Manually:

1. **WARNING: Do not use the Hand Crank (1) to assist a *powered* Winch. This will damage the Winch, and may cause personal injury. (See Figure E.)**
2. Place the vehicle's transmission in "Park." Turn off the engine. Set the emergency brake, and block the wheels from rolling, using suitable chocks (not included).
3. **To retract the cable**:
   a. Tighten both the Crank Nuts (13) on the end of the Shaft (21). The Hand Crank will need to be removed temporarily to access the inner Crank Nut. Do not over-tighten. **(See Figure E.)**
   b. Rotate the Hand Crank (1) clockwise to tighten the Steel Cable. Continue turning the Hand Crank clockwise until the Steel Cable has been completely retracted. **(See Figure E.)**
4. **To let cable out:**
   a. The clutch needs to be released by loosening both the Crank Nuts (13) on the end of the Shaft (21). Once again, the Hand Crank (1) will need to be removed temporarily to access the inner Crank Nut. Be certain that the load on the cable is adequately supported before loosening either Crank Nut. **(See Figure E.)**
   b. Rotate the Hand Crank (1) counterclockwise to let out the Steel Cable. **(See Figure E.)**

To Estimate Pulling Capacity:

1. The Winch has a pulling capacity of 3,000 pounds. Applying this measurement to practical applications, you can use the Winch to move the following:
   a. Move a load from a dead stop of up to **3,000** pounds on ground.
   b. Move a waterborne marine craft of up to **8,500** pounds.
   c. Maintain a movement of a wheeled vehicle of up to **9,500** pounds.
2. **NOTE:** The Winch's pulling capacity is reduced as inclines increase. For example, **Rolling** capacity is reduced from 9,500 pounds on flat ground to approximately 1,700 pounds on a 45 Degree incline. Refer to the Chart for estimated pulling capacity **(rolling weight)** on various inclines. **(See Figure F.)**

Maximum (Rolling) Weight Capacities On An Incline (Approximately)

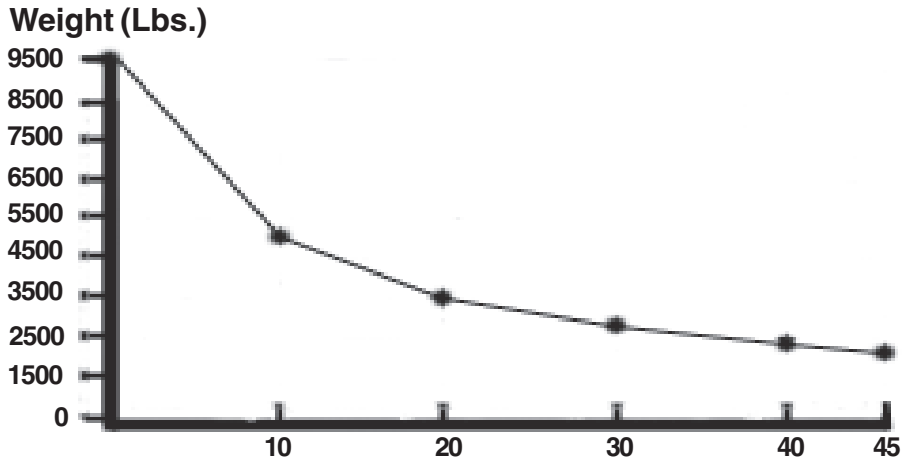


FIGURE F

To Use The Electrically Powered Winch:

1. Place the vehicle's transmission in "Park." Set the emergency brake, and block the wheels from rolling, using suitable chocks (not included).
2. **NOTE:** You may wish to keep the vehicle's engine running while using the Winch to continually recharge the battery. However, use extreme caution when working around a vehicle with its engine running.

DETACH THE HAND CRANK BEFORE USING ANY POWERED FUNCTION.

3. **To let cable out**:
   Pull out the Steel Cable to the desired length, using the "Power Out" feature located on the Switch (10). Always leave at least *four* turns of Steel Cable on the Spool of the Cable Assembly to prevent pulling the Steel Cable completely out of the Winch. **(See Figure G.)**

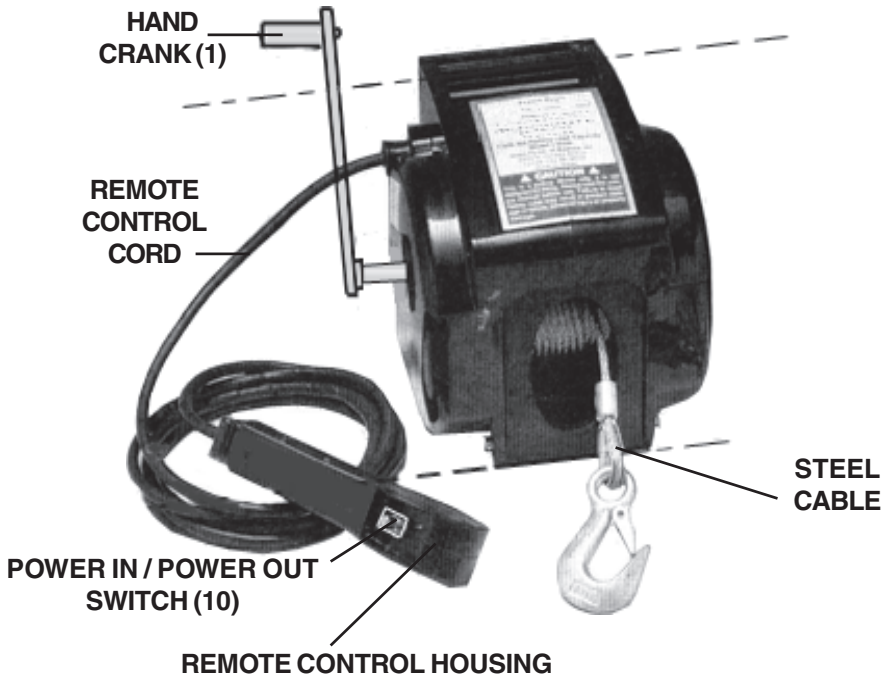


FIGURE G

4. **To retract the cable**:
   a. Tighten both Crank Nuts (13).
   b. Hook onto the object using a pulling point, tow strap, or chain (all not included). Never wrap the Steel Cable around the object or hook onto the object itself. This can cause damage to the object being pulled, and kink or fray the Steel Cable. **(See Figure G.)**
   c. **WARNING: Never allow anyone to stand near the Steel Cable, or in line with the Steel Cable behind the Winch while it is under power. Should the Steel Cable slip or break, it can suddenly whip back towards the Winch, causing a hazard for anyone in the area. Always stand well to the side while winching.**
   d. Stand clear and, when it is safe to do so, use the "Power In" feature on the Switch (10) to retract the Steel Cable and winch the object as desired. **(See Figure G.)**

To Use The Pulley Hook:

1. With the Winch Cable Hook (57) and the accessory Pulley Block Assembly (56) attached to the Steel Cable, the Pulley Block Assembly (56) allows you to offset the Winch but retain a straight shot. The Pulley Block Assembly (56) can also be used to nearly *double* the Winch's capacity by simply attaching the Pulley Block Assembly (56) directly to the load and the Winch Cable Hook (57) to a sturdy mount near the Winch (such as the rear bumper). **(See Figure H.)**

2. To attach the Pulley Block Assembly (56) to the Steel Cable, remove the two Nuts on the Pulley Hook. Then, remove one Side Plate on the Pulley Hook. **(See Figure H.)**

3. Insert the Steel Cable beneath the Pulley. Then, reattach the Side Plate and the two Nuts. **(See Figure H.)**

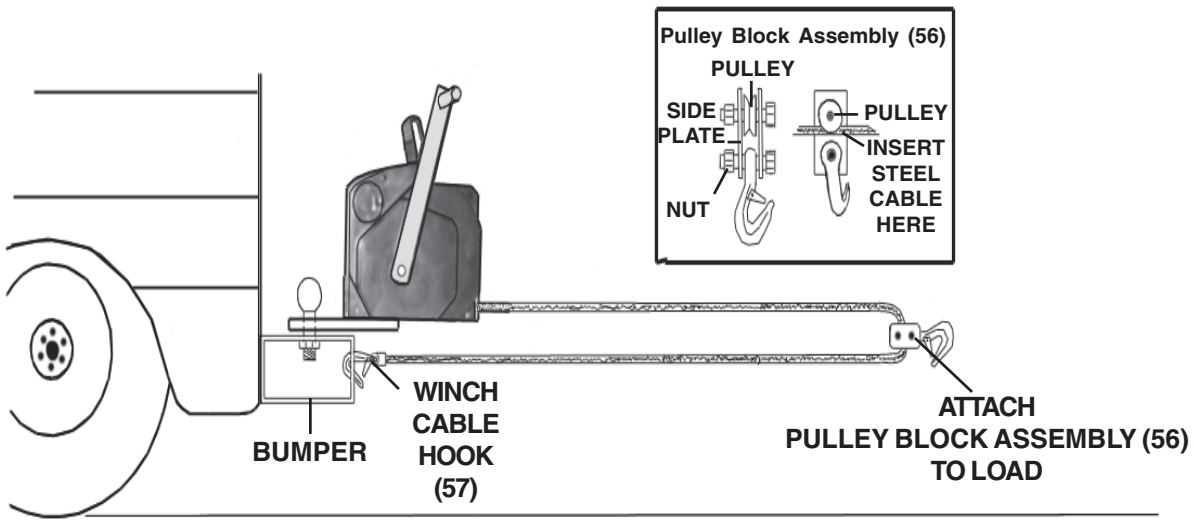


FIGURE H

INSPECTION, MAINTENANCE, AND CLEANING

1. **CAUTION:** Always release a load from the Winch, and disconnect the Winch from its 12 Volt DC electrical supply source, before performing any inspection, maintenance, or cleaning.

2. **BEFORE EACH USE,** inspect the general condition of the Winch. Check for loose screws, misalignment or binding of moving parts, cracked, bent or broken parts, frayed Steel Cable, and any other condition that may affect its safe operation. Inspect the entire unit for corrosion that may be caused by exposure to salt water or weather. If abnormal noise or vibration occurs, have the problem corrected before further use. Do not use damaged equipment.

3. **PERIODICALLY,** use a premium quality, lightweight oil to lubricate the Steel Cable.

4. **EVERY SIX MONTHS,** separate the Left and Right Shells (parts 4, 60) to grease the Gears (parts 23, 28, 36, 19). Use any good quality, waterproof, gear grease.

5. **TO CLEAN,** wipe with a clean, damp cloth. If necessary, a mild detergent may be used.

PLEASE READ THE FOLLOWING CAREFULLY

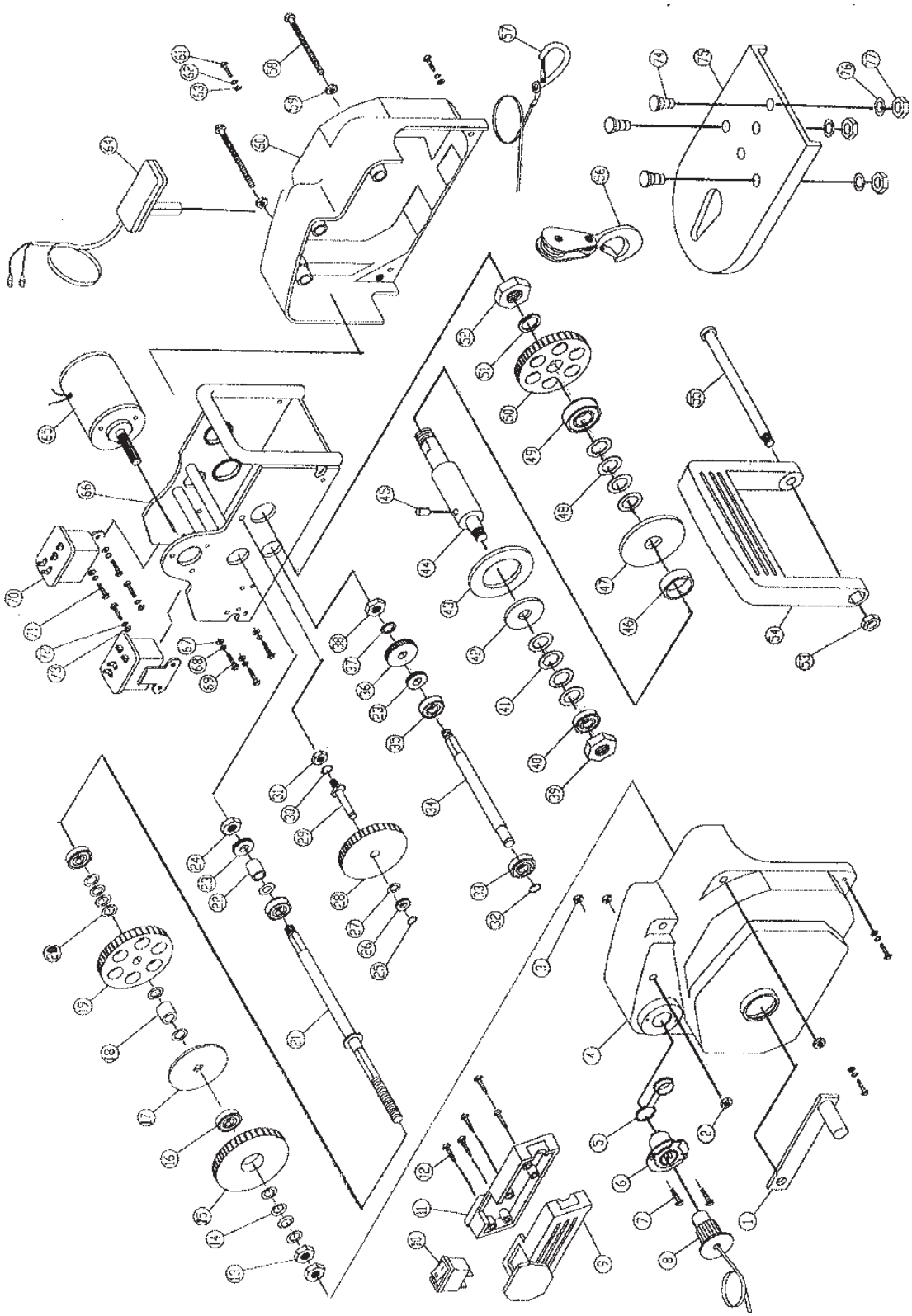
THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

PARTS LIST

Part	Description
1	Hand Crank
2	Nut M4
3	Nut M3
4	Right Shell
5	Rubber Cover
6	Remote Control Socket
7	Screw M3 x 12
8	Cord Plug
9	Remote Control Left Housing
10	Switch
11	Remote Control Right Housing
12	Stun Screw 5T 2.9x16
13	Crank Nut M12
14	Lock Nut
15	Clutch Lining 55T
16	Bearing (1)
17	Clutch Plate
18	Spacer
19	Drive Gear 55T
20	Washer
21	Main Shaft
22	Shaft Spacer
23	Pinion Gear
24	Nut M12
25	Thrust Washer
26	Retaining Ring
27	Washer
28	Connecting Gear 124T
29	Connecting Gear Shaft
30	Lock Washer
31	Nut M12
32	Spacer
33	Bearing (2)
34	Shaft
35	Bearing (3)
36	Idler Gear 23T
37	Spring Washer
38	Screw M12
39	Nut M12

Part	Description
40	Bearing (4)
41	Washer
42	Plate (L)
43	Plate (S)
44	Cable Collar
45	Cable Faster
46	Cable Spacer
47	Flange Drum
48	Spacer
49	Bearing (4)
50	Gear 55T
51	Spring Washer
52	Nut M20
53	Nut M6
54	Handle
55	Screw (3)
56	Pulley Block Assembly
57	Winch Cable Hook
58	Screw M4x60
59	Nut M4
60	Left Shell
61	Screw M5x10
62	Spring Washer
63	Washer
64	Wire Harness Assembly
65	Motor
66	Frame Assembly
67	Washer
68	Spring Washer
69	Screw (6) M5x10
70	Circuit Breaker Assembly
71	Screw M5x8
72	Spring Washer
73	Washer
74	Screw M10
75	Plate
76	Washer
77	Nut M10

ASSEMBLY DIAGRAM



NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.